

# VERIFI

The Virtual Engine Research Institute  
and Fuels Initiative  
at Argonne National Laboratory

## Workshop for High-Performance Computing-Enabled Engine Simulations

*Hosted by*

The Virtual Engine Research Institute and Fuels Initiative (VERIFI)

### Gnuplot Scripts Instructions

- **Log into Mira:**
  - > `ssh username@mira.alcf.anl.gov`
  - You should now be in your home directory: `[username@mira1 ~]$`
- Go to the SRC directory under your username **VERIFI\_Workshop** project directory:
  - > `cd /projects/VERIFI_Workshop/$USER/Hands-on/SRC`
- Remove previous scripts directory and copy the new files:
  - > `rm -r scripts`
  - > `cp -r /projects/VERIFI_Workshop/Hands-On/SRC/scripts .`
- Go to the new scripts directory and execute the scripts:
  - > `cd scripts`
  - > `./plot.sh -t single -s 24 -v all`
  - > `./plot.sh -t single -s 30 -v all`
  - > `./plot.sh -t single -s 35 -v all`
  - > `./plot.sh -t single -s 36 -v all`



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## Gnuplot Scripts Instructions (continued)

This will generate 4 plots (one for each SOI timing you simulated going from -24 to -36) in \*.png format in the same folder, showing the stock simulations (in blue), with the results from your simulations during the Hands-on Session (in red).

- You can copy the \*.png files onto your local desktop (using a program such as WinSCP to log into Mira for file transfer) to see the results.
- Additional options for using Gnuplot scripts are available in the README file included in the scripts folder:

> more /projects/VERIFI\_Workshop/\$USER/Hands-On/SRC/scripts/README

*See sample plots in next slides...*

**NOTE 1:** If you have XWindows installed on your machine, you can pull up your plot interactively instead of generating the \*.png files. E.g.:

> ./plot.sh -i -t single -s 30 -v all

**NOTE 2:** To install XWindows on your machine, please follow the steps in the PDF file available at:

[http://www.ece.unm.edu/csg/email/XServer\\_Putty\\_Windows7-ECE.pdf](http://www.ece.unm.edu/csg/email/XServer_Putty_Windows7-ECE.pdf)



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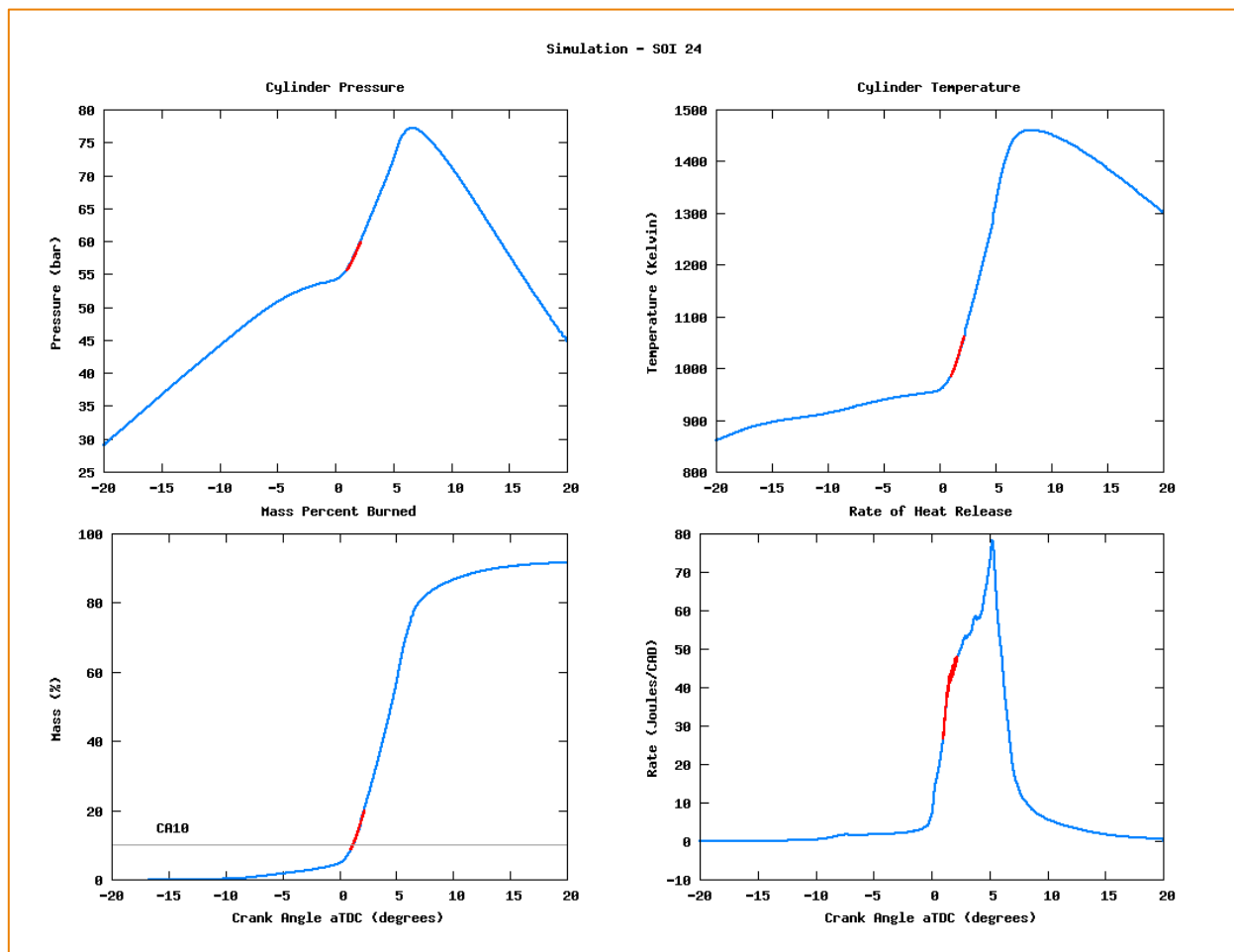
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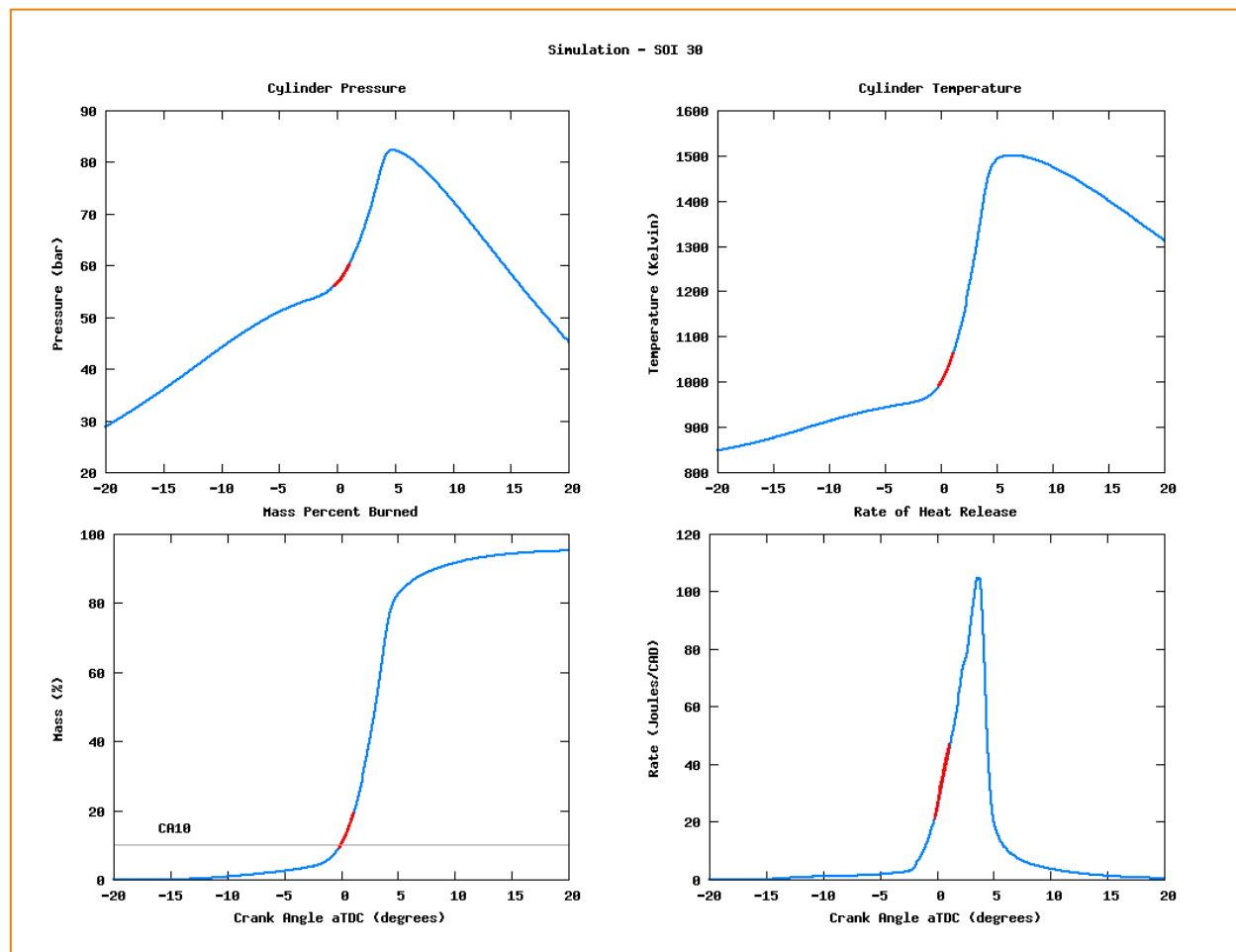
## Sample plot: case SOI 24



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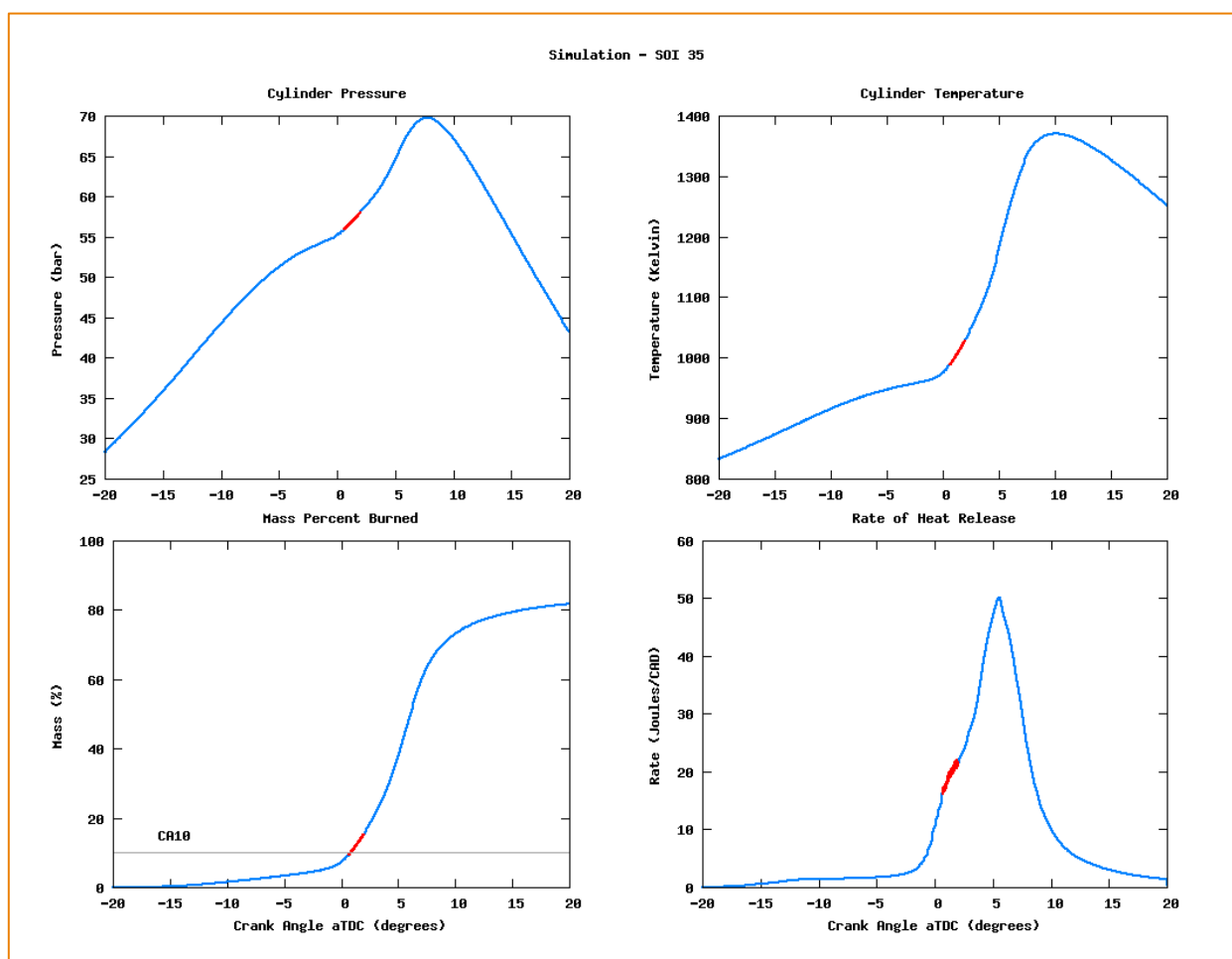
## Sample plot: case SOI 30



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## Sample plot: case SOI 35



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## Sample plot: case SOI 36

